Laboratory SOP 30

Reissued December, 1996

Revised April 1, 2016

Georgia Department of Transportation
Office of Materials and Testing

Standard Operating Procedure (SOP) 30
Independent Assurance Program

I. General

This Standard Operating Procedure outlines the procedures and responsibilities under which the Independent Assurance (IA) Program operates. The Federal Highway Administration (FHWA) requires each State Department of Transportation to establish and maintain an Independent Assurance Program as part of an overall Quality Assurance (QA) Program. IA is defined as activities that are unbiased and independent evaluations of all the sampling and testing procedures used in the QA program. IA provides an independent verification of the reliability of the acceptance (or verification) data obtained by the agency and the data obtained by the contractor. The results of IA testing are not to be used as a basis of acceptance. IA provides an assessment of certified sampling and testing personnel and information for quality system management.

This program is administered using a system basis approach by conducting unbiased systematic audits as independent evaluations, and adheres to guidelines set forth in AASHTO Designation R 44 (Standard Practice for Independent Assurance (IA) Programs).

II. Authority

This program was instituted by the Department under certain guidelines established by the Federal Highway Administration, set forth in the Code of Federal Regulations (23 CFR 637 B) - Quality Assurance Procedures for Construction.

III. IA Program Benefits and Services

A. Customer Service

The primary function of this program is to provide an unbiased and independent assessment of all certified sampling and testing personnel. This assessment includes evaluation of procedures and equipment used for the acceptance of highway materials and construction.

IA is used for verification of sampling procedures, testing procedures, and testing equipment.

Information is provided to FHWA and various GDOT personnel and partners on the accuracy and reliability of the Acceptance and Verification Programs.

1. Benefits the IA program provides to FHWA

a. IA provides an annual report to the FHWA detailing the IA program findings and actions in Georgia.

b. IA provides information to identify strengths and areas for improvement in the Quality Assurance Program, by evaluating the accuracy and reliability of sampling and testing equipment and personnel.

2. Benefits the IA program provides to Office of Materials and Testing (OMAT), GDOT Testing Management, Consultant firms, Contractors, Suppliers, Local Governments

a. IA provides identification of strengths and weaknesses of OMAT's Technician Training & Certification Programs. IA assists in identifying future goals.

b. IA assesses skill levels for certified technicians and encourages these technicians and their supervisors to set high goals for sampling and testing proficiency.

B. Technical Recertification

An additional value of the Independent Assurance Program (IAP) is utilization as part of the recertification process for technicians. This is an administrative process whereby the technician certification team will draw upon information provided by the IA annual reports and evaluation information Refresher courses are currently offered to technicians as part of recertification, and the IA evaluations will supplement the recertification requirements.

IV. Independent Assurance Program Features

The Independent Assurance Program is accomplished using the System Basis approach. The System Basis approach is personnel-related rather than project-related and allows easier tracking of individuals. It establishes frequency of evaluation and testing to ensure technicians are competent. Using the System Basis method, the Independent Assurance Engineers evaluate the accuracy of sampling and testing procedures and the reliability and calibration of equipment utilized by the Office of Materials and Testing Testing Management Technicians, Contractor's Quality Control Technicians (QCT), GDOT Construction Field Concrete Technicians, and Consultant Technicians actively performing acceptance sampling and testing on GDOT and Local Government projects which utilize Federal Aid Funds. Acceptance sampling and testing includes Quality Control (QC), Verification, Independent Verification, and Resolution as part of the Quality Assurance Program. At the end of each calendar year, the GDOT Program Operations Manager, in conjunction with the Independent Assurance Area Supervisors, prepare an annual report that assesses the quality of the acceptance sampling and testing program. The Program Operations Manager submits the annual report to the FHWA by March 1st of each year.

The Independent Assurance Unit utilizes a computer database of technician evaluations for this assessment. This data is used to determine technician recertification status.

A. General Responsibilities

1. Independent Assurance Organization

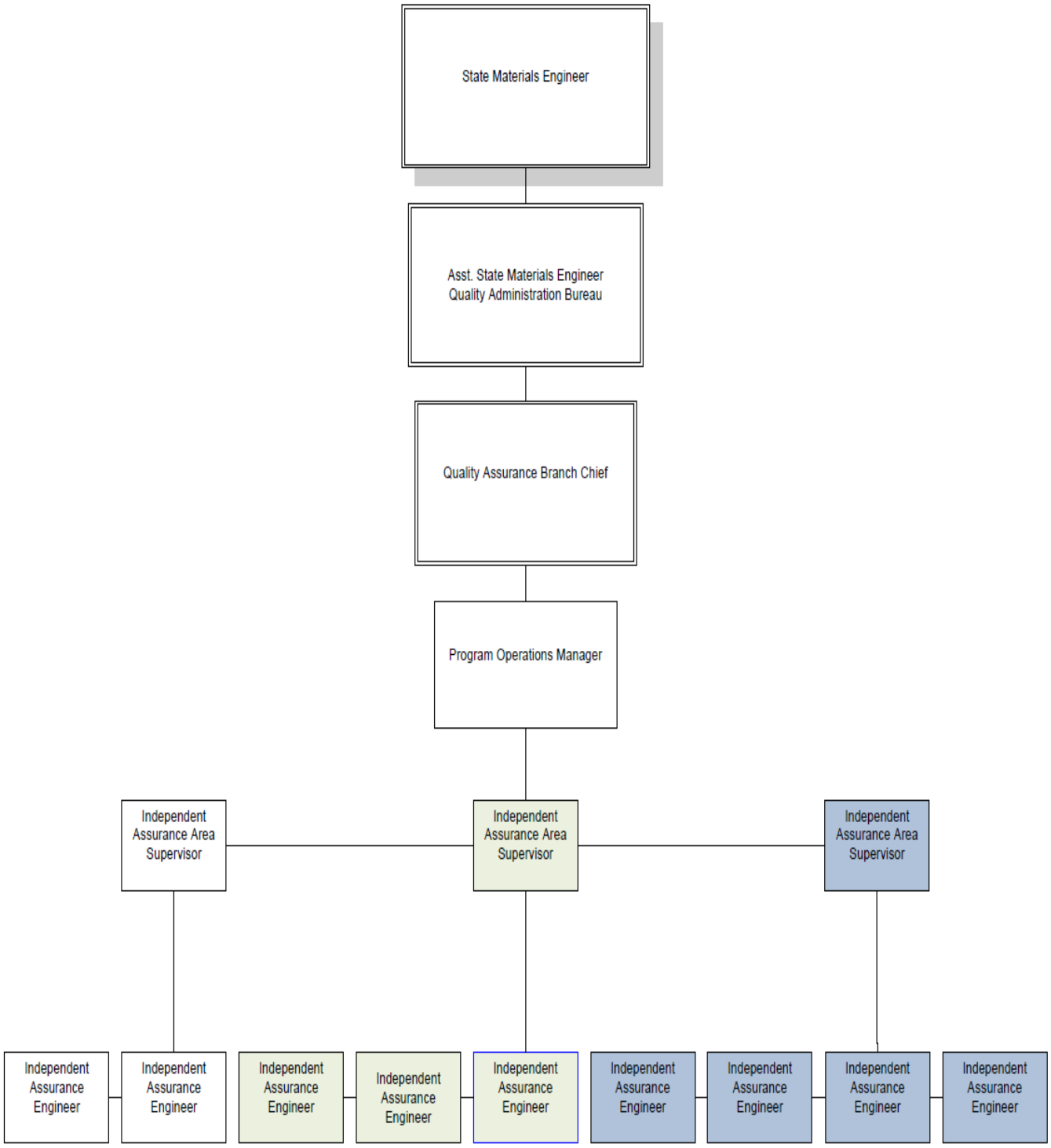
a. IA Engineers are employed by the Department's Office of Materials and Testing (OMAT), Quality Assurance Branch, Independent Assurance Unit.

b. IA Engineers must have been certified in each of the same sampling and testing methods as the technicians they are evaluating and be Independent Assurance Engineer certified.

c. IA Engineers schedule evaluations of the field technicians in the Quality Assurance Program (on a project or as part of a District meeting.)

d. Each IA Area Supervisor prepares an annual Area Report from evaluations performed by IA Engineers under their supervision.

Independent Assurance Organization Chart



2. Testing Technicians

a. Testing Technicians are responsible for maintaining current certification(s).

b. Technicians must cooperate fully with periodic evaluations. Lack of cooperation will result in an unsatisfactory evaluation.

c. Upon an unsatisfactory evaluation, the testing technician will have between 2 and 10 working days from the date of this unsatisfactory evaluation to request a re-evaluation. IA will have 10 days from this request to re-evaluate the technician. Technicians who receive an unsatisfactory evaluation will not conduct acceptance sampling and testing. Failure by the technician to adhere to the requirements above will mandate re-certification, which includes both written and field tests administered by the Testing Management Branch, in order to resume acceptance sampling and testing operations.

3. Quality Assurance Branch Management

a. The Quality Assurance (QA) Branch Program Operations Manager will prepare and distribute the statewide annual Systems Report to the Federal Highway Administration, Testing Management Supervisors, Testing Management Branch Chief, Quality Assurance Branch Chief, Testing Bureau Chief, Quality Administration Bureau Chief, District Construction Engineers, District Engineers, and the State Materials Engineer. Additional Systems Reports may be created as requested.

b. The Program Operations Manager will monitor and review the IA program statewide to ensure consistency in the administering of the program, evaluate its effectiveness, and suggest changes as necessary for continuous process improvement.

c. Dispute resolutions of evaluations by IA Engineers under the Independent Assurance Program will be conducted by the Program Operations Manager coordinating with the IA Area Supervisors and Testing Management Operations Supervisors.

B. Evaluation of Sampling and Testing Technicians

1. Frequency and Locations of Evaluations

a. Evaluations of the active technicians shall be scheduled throughout a calendar year to meet the IA Program's commitment. Each certified technician who has performed acceptance testing on GDOT and/or Local Government Projects which utilized Federal

Aid Funds within the prior calendar year is required to have an annual IA evaluation. Every effort will be made to ensure that this takes place. However, due to unforeseen circumstances, it may be impossible to evaluate 100% of these technicians each year. GDOT's commitment to the FHWA is the evaluation of at least 90% of these technicians each year. Technicians who do not maintain certification will not be allowed to perform acceptance sampling and testing.

b. Location for evaluation of each technician will be at the job sites on GDOT projects (whenever possible), production plants involved in the acceptance decision, and/or alternative sites where such an evaluation may be accomplished. The technicians may be employed by GDOT, Contractors, Consultant Firms, or Local Governments.

2. Independent Assurance Evaluation Methods

a. Independent Assurance Engineers (IAE) will evaluate each technician by Observation, Proficiency, and/or Split Sample assessments.

i. Observation allows the IAE to check both the equipment and the technicians under actual testing conditions, using a checklist based on GDOT and industry standard published procedures. The IAE will score the technician using criteria set forth below in Section 3 - Criteria for Identifying Proficient, Satisfactory, or Unsatisfactory Technicians. The IAE will promptly document the results of the evaluation on the Qualification Performance Report (QPR). (See Appendix C for Example QPR).

ii. Split samples are satisfactory if the test results meet the comparison criteria as defined in Appendix B. See Section IV. E. below for additional information**.** For Hot Mix Asphalt and Field Concrete sampling and testing, at least 10% of IA evaluations will be split sample evaluations.

iii. Proficiency samples allow the IAE to check both the equipment and the technicians under actual testing conditions and allow comparison of individual test results with the average of two or more laboratories. This approach allows a GDOT Laboratory to manufacture samples, which are used to test and evaluate technicians.

Acceptable tolerance for these test results falls within two standard deviations of the mean.

b. Certified Technicians will be evaluated in the following certification areas (See Appendix A):

i. Quality Control Technician Level 1 (QCT 1)

ii. Quality Control Technician Level 2 (QCT 2)*

iii. Roadway Testing Technician (RTT)

iv. Field Concrete Technician (FCON)

*Level 2 Technicians will go through the same evaluation process as Level 1 Technicians.

3. Criteria for Identifying Proficient, Satisfactory, or Unsatisfactory Technicians

The IAE will use Checklist Summary Sheets to determine if the technician is "Proficient", "Satisfactory", or "Unsatisfactory" in each applicable certification area. (See Appendix D for Sample Checklist Summary Sheet). Refusal to participate or lack of cooperation in the IA evaluation will be referred to the technician's immediate supervisor and will be sufficient reason to consider an evaluation "Unsatisfactory." Evaluation results are entered into the database for the Annual Report. The Technician's Evaluation Score is reviewed with the Technician.

a. Procedures Performed Proficiently

A "Proficient" Technician is highly skilled in the sampling and/or testing method(s). Test results provided by this technician can be used in the materials acceptance decision. When the Technician achieves a total score of at least 95% in the sampling and testing methods evaluated for each certification type, the Technician receives an evaluation of "Proficient." The following statement is designated on the QPR: "The Technician performed the procedures proficiently and this Technician's samples and tests can be used in the acceptance decision on Georgia Department of Transportation or Federal Aid Local Government projects."

b. Procedures Performed Satisfactorily

A "Satisfactory" Technician is skilled in the sampling and/or testing method(s). Test results provided by this technician can also be used in the materials acceptance decision. When the Technician achieves a total score of at least 85%, but less than 95% in the sampling and testing methods evaluated for each certification type, the Technician receives an evaluation of "Satisfactory." The

following statement is designated on the QPR: “The Technician performed the procedures satisfactorily and this Technician’s samples and tests can be used in the acceptance decision on Georgia Department of Transportation or Federal Aid Local Government projects.” The IAE should encourage the technician to strive for Proficient status on the next evaluation.

c. Procedures Performed Unsatisfactorily

An "Unsatisfactory" Technician does not meet the minimum requirements for test results to be used in the materials acceptance decision. When the Technician achieves a total score of less than 85% in the sampling and testing methods evaluated for each certification type, the Technician receives an evaluation of "Unsatisfactory." The following statement is designated on the QPR: “The Technician did not perform the procedures satisfactorily and must receive at least a Satisfactory rating on a re-evaluation of the procedures before this Technician’s samples and tests can be used in the acceptance decision on Georgia Department of Transportation or Federal Aid Local Government projects.”

i. The IAE reviews the QPR with the Technician and the Technician’s immediate supervisor after an unsatisfactory evaluation.

ii. After a first unsatisfactory evaluation**,** the Technician is advised that they should request re-evaluation within 2 to 10 working days following the unsatisfactory evaluation. See Section IV A 2 c for more details on certification following failed evaluation.

iii. After a second unsatisfactory evaluation, the Technician and the Technician’s immediate supervisor are advised that the supervisor may request one additional Technician re-evaluation for a maximum of three evaluation attempts.

iv. After a third unsatisfactory evaluation, the OMAT will revoke the Technician’s certification , and there will be no additional IA re-evaluation of the Technician until he or she is re-certified. Testing Management Branch will conduct recertification, which includes both written and field tests before the technician can resume acceptance sampling and testing operations.

Distribution of Qualification Performance Report to be Sent by IA Engineers			
Result	Contractor's QC Technician	OMAT/Consultant/Local Government Technician	Construction Technician
Proficient or Satisfactory	Technician, Contractor's QC Manager, Testing Management Operations Supervisor, Independent Assurance Area Supervisor, Testing Management Branch Chief	Technician, Testing Management Operations Supervisor, Consultant Rep, Local Government Rep, Independent Assurance Area Supervisor, Testing Management Branch Chief	Technician, Construction Project Manager, Independent Assurance Area Supervisor
1st Unsatisfactory	Technician, Contractor's QC Manager, Testing Management Operations Supervisor, Independent Assurance Area Supervisor, Testing Management Branch Chief	Technician, Testing Management Operations Supervisor, Consultant Rep, Local Government Rep, Independent Assurance Area Supervisor, Testing Management Branch Chief	Technician, Construction Project Manager, Area Engineer, Independent Assurance Area Supervisor, Concrete Branch Chief
2nd Unsatisfactory	Technician, Contractor's QC Manager, Testing Management Operations Supervisor, Independent Assurance Area Supervisor, Testing Management Branch Chief , Quality Administration Bureau Chief	Technician, Testing Management Operations Supervisor, Consultant Rep, Local Government Rep, Independent Assurance Area Supervisor, Quality Administration Bureau Chief , Testing Management Branch Chief	Technician, Construction Project Manager, Area Engineer, District Construction Engineer, Independent Assurance Area Supervisor, Concrete Branch Chief
3rd Unsatisfactory – Certification Revoked	Technician, Contractor's QC Manager, Testing Management Operations Supervisor, Independent Assurance Area Supervisor, Testing Management Branch Chief, Quality Administration Bureau Chief, District Engineer, State Materials Engineer	Technician, Testing Management Operations Supervisor, Consultant Rep, Local Government Rep, Independent Assurance Area Supervisor, Testing Management Branch Chief, Concrete Branch Chief, Quality Administration Bureau Chief, State Materials Engineer	Technician, Construction Project Manager, Area Engineer, District Construction Engineer, Independent Assurance Area Supervisor, Concrete Branch Chief, District Engineer

C. Evaluation of Test Equipment Accuracy

Equipment checks and performance will be documented for the Annual Report. The testing equipment shall be evaluated by using one or more of the following methods:

1. Observation/Calibration

The IAE observes the sampling and/or testing procedures of the Technician to verify that the equipment is being operated properly. The condition of the equipment is also examined for signs of wear or deterioration. Prior to or during project or plant visits the IA Engineer performs calibration checks of equipment using known weights and/or calibration/standardization devices.

2. Split Sample Test Results

Side by side tests are performed at the job site with the IAE's test equipment or split samples are returned to the Central or Branch Labs for testing and comparison. Comparison tolerances are documented in Appendix B.

3. Proficiency Samples

These samples allow the IAE to check both the equipment and the technician under actual testing conditions and allow comparison of individual test results with the average of two or more laboratories. This approach allows a GDOT Laboratory to manufacture samples, which are used to test and evaluate technicians. Acceptable tolerance for these test results falls within two standard deviations of the mean.

D. Resolution of Unsatisfactory Equipment Performance

1. Equipment maintained by the technician or by a third party and evaluated as not in good repair and/or not functioning properly requires immediate repair or replacement before test results may be used in the acceptance program on GDOT projects.

2. Failure to repair or replace equipment known not to be in good repair and/or not functioning properly will result in an "Unsatisfactory" audit for the Technician.

3. Equipment rechecks and performance will be documented for the Annual Report

E. Split Sample Testing

All sampling and testing shall be in accordance with appropriate procedures in the "Sampling, Testing, and Inspection Manual". Independent Assurance samples and/or tests must be taken from the same location at approximately the same time as project acceptance samples and/or tests. Independent Assurance Engineers must assure that correct sampling and/or test methods and procedures are used.

1. Asphaltic Concrete Comparison

a. Extraction

i. A sample shall be taken, quartered, and divided by Acceptance personnel in the presence of the IA Engineer in accordance with GSP 15 – Sampling Procedure for Asphalt Concrete Mixtures.

ii. When circumstances make quartering impractical, such as with OGFC mix, separate samples may be secured provided they are taken at the same time and location.

iii. When acceptance and/or Independent Assurance split sample results are not immediately known, the IA Engineer will review the results as soon as the results are available. In the event the results of the split sample are not within the established tolerances, the IA Engineer shall:

- Review the sampling technique and procedure.
- Immediately notify the Testing Management Operations Supervisor and when appropriate, the Technical Services Engineer.
- When the discrepancy cannot be resolved, a written notification shall be sent to the Testing Management Operations Supervisor and/or Technical Services Engineer requesting assistance in investigating the matter.
- Within 2 days, follow up on the written request to ensure that an investigation has been made and properly documented.

b. Testing Management Operations Supervisor and Technical Services Engineer

i. For some materials, such as asphaltic concrete, the investigation into discrepancies between the technician's and IA test results will require the IAE to request assistance from Technical Services or Testing Management personnel. The IAE will request information concerning previous problems encountered with the testing equipment and personnel. In such situations, the IAE will initiate a letter requesting such assistance with the investigation as described in Section **E.1.a.iii** above.

ii. The IAE will document on the test report the findings of such investigations.

c. Cores

When cores are used to monitor compaction or voids, comparison tests may be made by either of two methods. Independent Assurance cores from the same area as acceptance cores may be taken, or the acceptance cores may be used for the Independent Assurance tests providing they are tested by a different technician, preferably using a different facility.

d. Nuclear Gauge

When a nuclear gauge is used to monitor compaction or voids, comparison tests should be made in the same general location and at the same time as project acceptance tests. Whenever possible, comparison of the results is to be made on individual areas and not on average of tests.

2. Soil Compactions

Independent Assurance and acceptance soil compactions run for comparison purposes shall be conducted at the same time and at the same location on the roadway. When the results do not compare, the Independent Assurance Engineer will make a thorough investigation of test procedures and equipment.

3. Comparison Tolerance

See Tolerances as Listed in Appendix B.

4. Split Sample Testing and Discrepancy Resolution

Note: Acceptable Split Sample tolerances are located in Appendix B.

a. When Acceptance and Independent Assurance results are known at the test site and they are not within the established tolerances, the IAE will notify the technician's supervisor for resolution.

b. If the situation requires further investigation, the IAE will include this information on the test report.

c. When Acceptance and/or Independent Assurance split sample results are not immediately known, the IAE will obtain and review the results within 2 working days.

d. In the event the results of the split sample are not within the established tolerances, the IAE will review the sampling technique and procedure and immediately notify the Testing Management Operations Supervisor and when appropriate, the Technical Services Engineer.

e. The IAE will send a written request to the Testing Management Operations Supervisor and/or Technical Services Engineer requesting assistance in investigating split sample discrepancies. With this assistance the IAE will investigate and document the discrepancy within ten business days**.** (See Appendix E for example of written request.)

f. The IAE will document on the test report the findings of such investigations.

V. Documentation

A. Qualification Performance Report

During project or plant visits the IA Engineer performs technician evaluations and checks equipment by observation and by using known weights or calibration devices, and enters the results in the database. The Qualification Performance Report will be used to document the results after the evaluation concludes.

B. Split Sample Results

These are side by side tests performed at the job site with the IAE's test equipment or Split Samples returned to the Central or Branch Labs for testing and assessment. Comparison tolerances are documented in Appendix B.

C. Proficiency Samples

These samples allow the IAE to check both the equipment and the technicians under actual testing conditions and allow comparison of individual test results with the average of two or more laboratories. This approach allows a GDOT Laboratory to manufacture samples, which are used to test and evaluate technicians. Acceptable tolerance for these test results falls within two standard deviations of the mean.

D. Annual Report

According to the Federal Aid Policy Guide, 23 CFR 637.207(a) (2) (iv), "If the SHA [State Highway Agency] uses the system approach to the IA program, the SHA shall provide an annual report to the FHWA summarizing the results of the IA program."

Each Independent Assurance Area Supervisor (IAAS) will prepare an Area Report for the Program Operations Manager by January 31st of each year. The report will contain a list of technicians evaluated, results achieved, and any pertinent comments concerning procedures and/or equipment.

The Program Operations Manager will use the Area Reports to compile a statewide Annual Report and submit this report to the FHWA Division Administrator by March 1st of each year. This Annual Report will contain the following:

1. A summary of the System Basis Program for Independent Assurance that assesses the capabilities of personnel and equipment used on projects in Georgia. This summary will be a composite of the IA Area Supervisors' Area Reports.

2. A summary of all personnel that received an Independent Assurance Evaluation for the calendar year.

3. A summary of equipment that received an Independent Assurance Evaluation for the calendar year.

4. A summary of recurrent infractions taken from checklists that may or may not have caused an unsatisfactory evaluation, but indicate a recurring problem that can be addressed in future training programs.

5. A summary of personnel and/or equipment which received an unsatisfactory Independent Assurance Evaluation and actions taken to rectify failures and to prevent future occurrences.

Appendix A APPLICABLE CERTIFICATIONS

Roadway Testing Technician

GSP 2 Sampling Procedure for Coarse and Fine Aggregate

GDT 21 Method of Test for Determining Field Density of Soils Containing > 45% Retained on 2 mm Sieve (or >10% Retained on 25 mm Sieve)

GDT 39 Method of Test for Specific Gravity of Compressed Bituminous Mixtures

GDT 42 Method of Test for Measurement of Thickness of Bases and Subbases, Method A

GDT 59 Method of Test for Testing Density of Roadway Materials with Nuclear Gauge

GDT 67 Method of Test for Family of Curves Method for Determining Maximum Density of Soils

GDT 73 Method of Test for Random Selection and Acceptance Testing of Asphaltic Concrete - Roadway

Asphalt Plant Technician – Level I

GSP 15 Sampling Procedure for Asphalt Concrete Mixtures

GDT 38 Method of Test for Mechanical Analysis of Extracted Aggregate

GDT 73 Method of Test for Random Selection and Acceptance Testing of Asphaltic Concrete - Asphalt Plants

GDT 83 Method of Test for Extraction of Bitumen from Paving Mixtures Using the Vacuum Extractor

GDT 125 Method of Test for Determining Asphalt Content By Ignition

Concrete Field Technician

GSP 17 Sampling Procedure for Freshly Mixed Structural Concrete

GDT 26 Method of Test for Air Content of Freshly Mixed Concrete by the Pressure Method

GDT 27 Method of Test for Slump of Portland Cement Concrete

GDT 35 Method of Test for Making and Curing Concrete Compression and Flexure Test Specimens in the Field

GDT 122 Method of Test for Temperature of Freshly Mixed Portland-Cement Concrete

Appendix B COMPARISON TOLERANCE

The following tolerances are provided as a guide. Independent Assurance personnel should initiate an investigation into any differences between Independent Assurance and acceptance results when they exceed these tolerances.

Asphaltic Concrete		
Sieve Size	**Maximum Differences Surface**	**Maximum Differences Intermediate and Base**
1/2” (12.5 mm)	3.5%	4.0%
3/8” (9.50 mm)	3.5%	4.0%
No. 4 (4.75 mm)	3.5%	3.5%
No. 8 (2.36 mm)	2.5%	3.0%
No. 200 (75 µm)	2.0%	2.0%
A.C.	0.40%	0.50%
Compaction or voids	2.0%	2.5%

Coarse Aggregate for Concrete, Surface Treatment	
Sieve Size	**Maximum Difference**
Top sieve	2.0%
Next to top sieve	3.0%
No. 4 (4.75 mm) >	6.0%
< No. 4 (4.75 mm)	3.0%
No. 200 (75 µm)	1.0%

Concrete Sand	
Sieve Size	**Maximum Difference**
3/8 in (9.5 mm)	2.0%
No. 4 (4.75 mm)	2.0%
No. 16 (1.18 mm)	4.0%
No. 50 (300 µm)	3.0%
No. 100 (150 µm)	2.0%
No. 200 (75 µm)	2.0%

Graded Aggregate (Section 815)	
Sieve Size	**Maximum Difference**
2 in (50 mm)	2.0%
1 ½ in (37.5 mm)	3.0%
3/4 in (19.0 mm)	6.0%
No. 10 (2.00 mm)	8.0%
No. 60 (250 µm)	6.0%
No. 200 (75 µm)	5.0%
Sand Equivalent	4 points
Compaction	2.0%

Soil Aggregate (Section 816)	
Sieve Size	**Maximum Difference**
2 in (50 mm)	3.0%
1 ½ in (37.5 mm)	3.0%
¾ in (19.0 mm)	8.0%
No. 10 (2.00 mm)	10.0%
No. 60 (250 µm)	8.0%
No. 200 (75 µm)	5.0%
Clay Content	5.0%
Volume Change and Plasticity Index	5.0%
Compaction	2.0%

Soil Materials (Sections 810, 812, 814)	
Sieve Size	**Maximum Difference**
No. 40 (425 µm)	5.0%
No. 60 (250 µm)	5.0%
No. 200 (75 µm)	5.0%
Clay Content	5.0%
Volume Change	
0-5	5.0%
6-15	7.0%
15>	9.0%
Theo. Density	3 pcf (48 kg/m^3)
Compaction	2.0%

Structural and Miscellaneous Concrete	
Test	**Maximum Difference**
Air Content	1.0%
Slump	1 in (25 mm)

Appendix C QUALIFICATION PERFORMANCE REPORT

GEORGIA DEPARTMENT OF TRANSPORTATION

Qualification Performance Report

Technician Name		Employer	
Date of Evaluation:		District/Area:	

Test Type		**Qualification Reviewed**		**Expiration**
QC:		RTT:		
Acceptance:		QCT Level 1		
Ind. Verification:		Field Concrete:		
Other:				

Evaluation Type			
Observation:		IA Sample #	
Split Sample:			
Proficiency Sample:		Technician Sample #	

Observation Section

Record Overall Score in Proper Block below:

Procedures Performed Proficiently: ☐

The Technician performed the procedures proficiently and this Technician's samples and tests can be used in the acceptance decision on Georgia Department of Transportation or Federal Aid Local Government projects.

Procedures Performed Satisfactorily: ☐

The Technician performed the procedures satisfactorily and this Technician's samples and tests can be used in the acceptance decision on Georgia Department of Transportation or Federal Aid Local Government projects.

Procedures Performed Unsatisfactorily: ☐

The Technician did not perform the procedures satisfactorily and must receive at least a Satisfactory rating on a re-evaluation of the procedures before this Technician's samples and tests can be used in the acceptance decision on Georgia Department of Transportation or Federal Aid Local Government projects.

Split Sample / Comparison

IA Split Sample Comparison Tolerance: ☐

These are side by side tests performed at the job site with the IAE's test equipment or Split Samples returned to the Central or Branch Labs for testing and assessment. Comparison tolerances are documented in Appendix B.

If Results Unsatisfactory (Overall Score):		*Date of Unsatisfactory Evaluation*
1st Unsatisfactory:		
2nd Unsatisfactory:		
3rd Unsatisfactory:		

IA Engineer Name: _____

Date: _____

Comments: _____

_____

_____

_____

Appendix D SAMPLE CHECKLIST SUMMARY SHEET

Roadway Testing Technician Summary Sheet

Technician Name:			
Company/Title:			
Certification Number:		Expiration:	
Email Address:			

Procedure	Critical		Weight	Important		Weight	Total Score	Date
GSP 2	-	-	4.00	11	11	0.727	8.00	
GDT 21	4	4	4.00	8	8	0.727	21.82	
GDT 39	4	4	4.00	6	6	0.727	20.36	
GDT 42	-	-	4.00	7	7	0.727	5.09	
GDT 59	3	3	4.00	14	14	0.727	22.18	
GDT 67	3	3	4.00	7	7	0.727	17.09	
GDT 73	1	1	4.00	2	2	0.727	5.45	
Totals:	15	15	60%	55	55	40%	100.00	

Overall Score:	100.0

<85	Unsatisfactory	
>=85 <95	Satisfactory	
>=95	Proficient	

Appendix E SAMPLE REQUEST FOR ASSISTANCE

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

OFFICE Materials and Testing
Forest Park, Georgia

DATE

From Program Operations Manager

To Testing Management Operations Supervisor & Bituminous Technical Services Engineer

Subject INDEPENDENT ASSURANCE SAMPLES EXCEEDING TOLERANCES

Attached are asphaltic concrete extraction split sample comparisons. You will notice that the results are outside our recommended percentages. In order to clarify these differences, we would appreciate your assistance in this investigation determining the possible cause(s), including any information concerning previous problems you have encountered with testing equipment and personnel. Please initial and return this report within one (1) week whether or not you have information regarding this problem.

SIEVE SIZE	MAXIMUM DIFFERENCES	
	Surface	Intermediate & Base
12.50 mm	3.5%	4.0%
9.50 mm	3.5%	4.0%
4.75 mm	3.5%	3.5%
2.36 mm	2.5%	3.0%
75 µm	2.0%	2.0%
A.C.	.4%	.5%
Compaction	2.0%	2.5%

If you have any questions, please let me know.

INITIAL: TMOS_____ TSE_____

Attachment(s)

All sampling and testing will be done in accordance with the “Sampling, Testing, and Inspection Manual”. This manual, approved by the Federal Highway Administration, outlines the policies, procedures and guidelines for the State's sampling and testing program. The guide schedule established in the Manual gives general guidance to testing personnel, yet affords them reasonable latitude to adapt to specific project needs. It is more important to secure representative samples and tests than to get the exact number of samples specified in the guide.

_____

State Materials Engineer

_____

Director of Construction